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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DO, THUAN V

ART UNIT PAPER NUMBER

2825

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,151

Applicant(s)

RUPP ET AL.

Examiner

Thuan Do

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☒ Claim(s) 18 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to amendment entered on 07/23/2003. Claims 1-17 remain pending in the application. Claim 18 is restricted.

RESTRICTION

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
Group I. Claims 1-17, programmable logic design using integrating is classifiable in class 716 subclass 16.

Group II. Claim 18, programmable logic design using netlist verification in class 716 subclass 6.

The invention group I has programmable logic design using integrating. The invention group II uses programmable logic design using netlist verification which is distinct from group I from subcombination with the utility of netlist verification. See M.P.E.P. § 806.05(c).

The group I is examining and the applicant is requested to cancel the claim 8 of non-examining group II.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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3. Claims 1-11,13,14,16 are rejected under 35 U.S.C. 102(e) as being unpatentable over Dave, Pat. No. 6,550,042 .

Regarding claim 1: Dave teaches a method comprising:

identifying a programmable logic core (col. 3, lines 10-30) ;

identifying an application (col. 1, lines 61-67 ASIC application);

designing an application specific circuit for the application (col. 1, lines 61-67 ASIC application) ; and

integrating the programmable logic core into the designed application specific circuit (col. 3, lines 10-30 where programmable logic blocks integrated between them by core interfacing function).

Regarding claim 2: Dave teaches a method comprising:

identifying a programmable logic core for the integrated circuit (col. 3, lines 10-30);

establishing a set of timing constraints associated with the programmable logic core (col. 9, lines 9-20) ; and

controlling the design of application specific circuit that interfaces with the programmable logic core in the integrated circuit (col. 3, lines 10-30 and col. 9, lines 9-20).

Regarding claims 3,4: These claims teach the method similar to the claim 1 and rejected in the same rationale.

Regarding claim 5: Dave teaches an integrated circuit including:

a programmable multi-scale array (col. 7, lines 32-50 where the length of each net is computed within interconnect nets using PE array as a multi-scale programmable structure) ;

an application circuit interface for providing a signal interface between the programmable multi-scale array and the application specific circuitry (col. 3, lines 10-30) ; and

a programmable logic adapted that configures the programmable multi-scale array (col. 3, lines 10-30).

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Regarding claims 6-11,13,14: These claims teach well known features to support claim 5 and rejected in the similar manner.

Regarding claim 16: This claim teaches a similar circuit of claim 1 and rejected in the same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 103 that form the basis for the rejections under this section made in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dave et al., Pat. No. 6,550,042 in view of Sample, Pat. No. 6,377,912.

Regarding claim 12: Dave teaches an integrated circuit with:

configuration data control logic (Dave in col. 3, lines 10-30 and col. 9, lines 9-20);

scan path logic (Sample in col. 4, lines 1-12);

application circuit interface logic (col. 3, lines 10-30)

However Dave does not teach the built in self test and its functions. Sample teaches these features in col. 4, lines 1-12.

It would have been obvious to one of ordinary skill in the integrated circuit design art at the time of the invention to have combined the teaching of Sample into Dave to have scan path logic because such scan path logic as taught by Sample would have provided a flexibility method in saving time in testing circuit design.

Allowable Subject Matter

Claim 15 is objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The reason for allowance is that the prior art of record fails to teach the combination of dependent claim and all other features of independent claim.

Allowable Subject Matter

Claim 17 is allowed. The reason is the prior art does not teach every features of this independent claim.

Response to Arguments


Applicant's arguments have been considered and persuasive . New ground rejection in introduced by the prior arts of Dave and Sample in above section.

CONTACT INFORMATION

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan Do whose telephone number is 703-305-2362. The examiner can normally be reached on Monday-Friday 8:30-5:30 (except 2nd Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 703-308-1323. The fax phone numbers for the organization where this application or proceeding is assigned are 703305-3431 for regular communications and 703-305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0596.



Thuan Do
Patent examiner
8/24/03